

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

- Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
- Applicant claims small entity status.
See 37 CFR 1.27.
- Specification [Total Pages 18]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (*if filed*)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
- Drawing(s) (35 U.S.C. 113) [Total Sheets 7]
- Oath or Declaration [Total Sheets 4]
 - a. Newly executed (original or copy)
 - b. Copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional with Box 18 completed)*
 - i. **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
- Application Data Sheet. See 37 CFR 1.76

Attorney Docket No.	60246-292; 10,797
First Inventor	Park, Young Kyu
Title	Multi-Tube in Spiral Heat Exchanger
Express Mail Label No.	EV 220475108 US

APPLICATION ELEMENTS	ADDRESS TO:
See MPEP chapter 600 concerning utility patent application contents.	Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450

7. CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all necessary)*
 - a. Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. CD-ROM or CD-R (2 copies); or
 - ii. Paper
 - c. Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. Assignment Papers (cover sheet & document(s))
10. 37 CFR 3.73(b) Statement Power of Attorney *(when there is an assignee)*
11. English Translation Document *(if applicable)*
12. Information Disclosure Statement (IDS)/PTO-1449 Copies of IDS Citations
13. Preliminary Amendment
14. Return Receipt Postcard (MPEP 503) *(Should be specifically itemized)*
15. Certified Copy of Priority Document(s) *(if foreign priority is claimed)*
16. Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. Other: Certificate of Express Mail.....

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

 Continuation Divisional Continuation-in-part (CIP) of prior application No.:

Prior application information: Examiner _____ Art Unit: _____
 For CONTINUATION OF DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference.
 The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS
 Customer Number: 026096 OR Correspondence address below

Name	Anthony P. Cho		
Address	Carlson Gaskey & Olds, P.C. 400 West Maple Road, Suite 350		
City	Birmingham	State	MI
Country	United States of America	Telephone	248-988-8360
Zip Code	48009		
Fax	248-988-8363		

Name (Print/Type)	Anthony P. Cho	Registration No. (Attorney/Agent)	47,209
Signature			
	Date 11/19/2003		

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

 17856
 U.S.PTO
 10/716974
 111903


Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



FEE TRANSMITTAL

for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 810.00)

Complete if Known

Application Number	Herewith
Filing Date	Herewith
First Named Inventor	Park, Young Kyu
Examiner Name	
Art Unit	
Attorney Docket No.	60246-292; 10,797

METHOD OF PAYMENT (check all that apply)

 Check Credit card Money Order Other None
 Deposit Account:

Deposit Account Number	03-0835
Deposit Account Name	Carrier

The Director is authorized to: (check all that apply)

Charge fee(s) indicated below Credit any overpayments
 Charge any additional fee(s) or any underpayment of fee(s)
 Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity	Small Entity	Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee		770.00	
1002 340	2002 170	Design filing fee			
1003 530	2003 265	Plant filing fee			
1004 770	2004 385	Reissue filing fee			
1005 160	2005 80	Provisional filing fee			
SUBTOTAL (1)		(\$ 770.00)			

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Independent Claims	Multiple Dependent	Extra Claims	Fee from below	Fee Paid
20	3	-20** =		X	= 0.00
		- 3** =		X	= 0.00

Large Entity	Small Entity	Fee Description
Fee Code (\$)	Fee Code (\$)	
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent
SUBTOTAL (2)		(\$ 0.00)

**or number previously paid, if greater; For Reissues, see above

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code (\$)	Fee (\$)	Fee Code (\$)	Fee (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath			
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet			
1053 130	1053 130	Non-English specification			
1812 2,520	1812 2,520	For filing a request for ex parte reexamination			
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action			
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action			
1251 110	2251 55	Extension for reply within first month			
1252 420	2252 210	Extension for reply within second month			
1253 950	2253 475	Extension for reply within third month			
1254 1,480	2254 740	Extension for reply within fourth month			
1255 2,010	2255 1,005	Extension for reply within fifth month			
1401 330	2401 165	Notice of Appeal			
1402 330	2402 165	Filing a brief in support of an appeal			
1403 290	2403 145	Request for oral hearing			
1451 1,510	1451 1,510	Petition to institute a public use proceeding			
1452 110	2452 55	Petition to revive - unavoidable			
1453 1,330	2453 665	Petition to revive - unintentional			
1501 1,330	2501 665	Utility issue fee (or reissue)			
1502 480	2502 240	Design issue fee			
1503 640	2503 320	Plant issue fee			
1460 130	1460 130	Petitions to the Commissioner			
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)			
1806 180	1806 180	Submission of Information Disclosure Stmt			
8021 40	8021 40	Recording each patent assignment per property (times number of properties)			40.00
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))			
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))			
1801 770	2801 385	Request for Continued Examination (RCE)			
1802 900	1802 900	Request for expedited examination of a design application			

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 40.00)

(Complete if applicable)

Name (Print/Type)	Anthony P. Cho	Registration No. (Attorney/Agent)	47,209	Telephone	248-988-8360
Signature				Date	11/19/2003

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

60,246-292
10,797

UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Park, et al.
Serial No.: Herewith
Filed: Herewith
Title: MULTI-TUBE IN SPIRAL HEAT EXCHANGER

EXPRESS MAIL CERTIFICATE

"Express Mail" Label Number: EV 220475108 US

EV220475108US)

Date of Deposit: November 19, 2003

I hereby certify that the attached documents or fees are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and are addressed to "Mail Stop Patent Application, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450."

Theresa M. Palmateer

(Typed or printed name of person mailing paper or fee)



(Signature of person mailing paper or fee)

N:\Clients\CARRIER\IP00292\PATENT\Certificate of Express Mail 11-19-03.doc